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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/995,377	11/26/2001	James Lewis van Welzen	P000047/2298P	1812

7590 10/03/2006

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EXAMINER

SHIBRU, HELEN

ART UNIT	PAPER NUMBER
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2621

DATE MAILED: 10/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/995,377	Applicant(s) WELZEN ET AL.	
	Examiner HELEN SHIBRU	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendments filed on 07/17/2006 have been entered and made of record. Claims 1-22 are pending. In view of the Applicant's amendment to the specification the objection of the specification is hereby withdrawn.

Response to Arguments

2. Applicant's arguments filed July 17, 2006 have been fully considered but they are not persuasive.

In re page 10 the Applicant states "Lane does not disclose or suggest reconstructing a preceding frame as claimed. Therefore, Lane could not have additionally disclosed utilizing memory sufficient to support the reconstruction step."

In response the Examiner respectfully disagrees. Lane discloses in trick play modes the tape speed is a function of the selected fast forward or reverse speed. Lane further discloses P-frame is generated from an I-frame. The I-frame is an anchor frame which is available as a reference. A complete picture can be generated from an I frame alone. The compression of P-frames relies on temporal prediction from previous I- frame. Lane further discloses an inter-coded image for every N frames of Normal play inter-coded image. Lane further discloses such trick play intra-coded images are useful for generating images during trick playback operation.

Lane discloses fast scan tracks must be able to store enough data, that can be read during trick play mode to support a reasonable image rate during trick play operation (see col. 45 lines 39-49). Lane further discloses tape storage capability is maximized to read and use during both normal play and trick play operation (see col. 37 line 62-col. 38 line 5).

In re page 10 the Applicant states "DVD takes advantage of digital data and may use MPEG-2 decoder whereas video tape recorders are based on analog signals and **do not use MPEG-2** decoding techniques."

The Examiner respectfully disagrees. Video tape recorders record data decoded in MPEG-2 technique. See prior arts 5,907,660 and 6,028,726 filed in 1997 for example that discloses VTRs compatible with MPEG-2 decoding techniques.

The claimed invention does in fact read on the cited references for at least the reasons discussed above and as stated in the detail Office Action as follows. This Office action is now made final.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action

4. Claims 1-3 and 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lane (US Pat. No. 5,377,051) in view of Official Notice.

Regarding claims 1 and 5, Lane discloses a method for performing single backwards playback, the method comprising:

(a) receiving a signal indicating selection of a single frame reverse function (see col. 28 lines 45-61 and col. 32 lines 45-64 and figures 2 and 8a. An encoder capable of computing trick play motion vectors in addition to the normal motion vectors for reverse and other trick play speeds. In addition to generating trick play motion vector the encoded 102 in fig. 8(a) generates an inter-coded image for every N frames of normal play inter-coded images. Such trick play

intra-coded inter-coded images are useful for generating images during trick playback operation);

(b) reconstructing frame data for a preceding frame of an original playback to generate reconstructed frame data (see col. 29 lines 6-29 and col. 37 lines 56-61. The trick play data may comprise a subset of the normal play data, a copy of a subset of the normal play data. The trick play data packets output by the data filter 308 of fig. 10(a) include duplicates of data packets sent to the normal play data processing circuit. See also col. 50 lines 66-68).

(c) utilizing memory sufficient to support the said reconstructing step (see col. 37 line 62-col. 38 line 5. Tape storage capability is maximized to read and use during both normal play and trick play operation);

(d) displaying the reconstructed frame data of the preceding frame (the inter-coded data are displayed. See col. 28 lines 24-44, and col. 39 lines 7-33).

Although Lane discloses the capability of reverse playback in preceding frames, Lane however, fails to disclose the feature of performing reverse playback in a DVD system as specified in the present claims 1 and 5.

Official notice is taken that the use of DVD (digital versatile disc) type media is well known in the art to store more audio, video, or other data. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify Lane by utilizing the DVD to take advantage of the higher storage data capacity.

Regarding claims 15 and 19, the limitation of claims 15 and 19 can be found in claim 1 and 5 above. Therefore claims 15 and 19 are analyzed and rejected for the same reason as discussed in claim 1 above.

Regarding claims 2, 6, 16, and 20, Lane discloses selection of single frame to reverse function has occurred (see col. 19 lines 39-57 and col. 33 lines 40-44).

Regarding claims 3, 7, 17, and 21 see the rejection of claim 1.

5. Claims 4, 8-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lane in view of Official Notice and further in view of Goodwin (US Pat. No. 6,532,232).

Regarding claim 9, it is noted that the feature of DVD player system recited thereof are present in the proposed combination of Lane and Official Notice indicated above. Lane further discloses a decoding engine for receiving a signal indicating selection of a single frame reverse function and reconstructing frame data for a preceding frame of an original playback (see claim 6, col. 27 line 65-col. 28 line 10, col. 33 lines 26-39 and lines 1-14, and col. 35 line 52-col. 36 line 20). Lane further discloses a display device for displaying the constructed frame (see fig. 10 a and rejection 1 above). Lane further discloses a frame buffer for displaying at the location of the screen corresponding to the slice (see col. 39 lines 16-22). Lane further discloses the frame buffer includes newly decoded data or repeated frame from the previous frame (see col. 39 lines 30-34)

Claim 9 further differs from lane and the proposed combination in that the claim the claim further requires a plurality of frame buffers storing frame data during reconstructing.

In the same field of endeavor Goodwin discloses ten buffers to store ten frames of digital video data (see fig. 6a and col. 8 lines 23-30). Goodwin further discloses the buffer memory are large (see col. 8 lines 41-53). Therefore in light of the teaching in Goodwin it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lane by

including a plurality of buffer in order to accommodate a worst case application and operation system.

Claim 10 is rejected for the same reason as discussed in claim 2 and 6 above.

Claim 11 is rejected for the same reason as discussed in claim 1 above.

Regarding claims 4, 8, 12, 18, and 22, the limitations of claims 4, 8 and 12 is discussed in claim 9 above. Therefore claims 4, 8 and 12 are analyzed and rejected for the same reason as discussed in claim 9 above.

Regarding claims 13 and 14, see fig. 4 of Goodwin DVD player.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

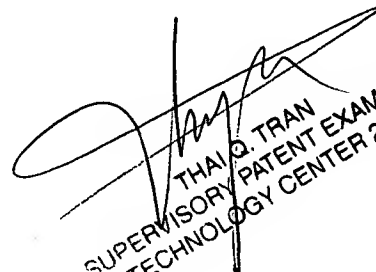
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HELEN SHIBRU whose telephone number is (571) 272-7329. The examiner can normally be reached on M-F, 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, THAI Q. TRAN can be reached on (571) 272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Helen Shibru
September 28, 2006


THAI Q. TRAN
SUPERVISORY PATENT EXAMINER
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